

Rabbit MCU Polyclonal Antibody | anti-MCU antibody

Anti-MCU Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19226	Rabbit	Human, Mouse, Rat, Monkey	Western Blot, Immunohistochemistry, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

MCU; Polyclonal Antibody; Anti-MCU Antibody; C10orf42; CCDC109A; Calcium uniporter protein; mitochondrial; HsMCU; Coiled-coil domain-containing protein 109A; mitochondrial calcium uniporter; anti-MCU antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for MCU detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-MCU antibody	WB (Western Blot), IHC (Immunohistochemistry), FCM/FACS (Flow Cytometry), ELISA (Direct ELISA)
Application Notes	WB: 0.25-0.5ug/ml Human, Mouse, Rat, Monkey IHC-P: 2-5ug/ml Human, Mouse, Rat FC/FACS/FCM: 1-3ug/1x10 ⁶ cells Human Direct ELISA: 0.1-0.5ug/ml Human
Immunogen	E Coli-derived human MCU recombinant protein (Position: V51-D351).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM (Flow Cytometry)

Figure 7. Flow Cytometry analysis of HELA cells using anti-MCU antibody (AAA19226). Overlay histogram showing HELA cells stained with AAA19226 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MCU Antibody (AAA19226, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight[®]488 conjugated goat anti-rabbit IgG (5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 6. IHC analysis of MCU using anti-MCU antibody (AAA19226). MCU was detected in paraffin-embedded section of human bladder cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-MCU Antibody (AAA19226) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen.



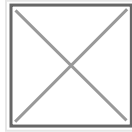
IHC (Immunohistochemistry)

Figure 5. IHC analysis of MCU using anti-MCU antibody (AAA19226). MCU was detected in paraffin-embedded section of human bladder cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-MCU Antibody (AAA19226) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



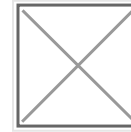
IHC (Immunohistochemistry)

Figure 4. IHC analysis of MCU using anti-MCU antibody (AAA19226). MCU was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-MCU Antibody (AAA19226) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 3. IHC analysis of MCU using anti-MCU antibody (AAA19226). MCU was detected in paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-MCU Antibody (AAA19226) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).



IHC (Immunohistochemistry)

Figure 2. IHC analysis of MCU using anti-MCU antibody (AAA19226). MCU was detected in paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2µg/ml rabbit anti-MCU Antibody (AAA19226) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # with DAB as the chromogen).

ADDITIONAL INFORMATION

Related Product Information for anti-MCU antibody	The mitochondrial calcium uniporter (MCU) is a transmembrane protein that allows the passage of calcium ions from a cell's cytosol into mitochondria. Its activity is regulated by MICU1 and MICU2, which together with the MCU make up the mitochondrial calcium uniporter complex. This gene encodes a calcium transporter that localizes to the mitochondrial inner membrane. The encoded protein interacts with mitochondrial calcium uptake 1. Alternative splicing results in multiple transcript variants.
References	1. Baughman, J. M., Perocchi, F., Girgis, H. S., Plovanich, M., Belcher-Timme, C. A., Sancak, Y., Bao, X. R., Strittmatter, L., Goldberger, O., Bagorad, R. L., Kotliansky, V., Mootha, V. K. Integrative genomics identifies MCU as an essential component of the mitochondrial calcium uniporter. <i>Nature</i> 476: 341-345, 2011. 2. De Stefani, D., Raffaello, A., Teardo, E., Szabo, I., Rizzuto, R. A forty-kilodalton protein of the inner membrane is the mitochondrial calcium uniporter. <i>Nature</i> 476: 336-340, 2011. 3. Hartz, P. A. Personal Communication. Baltimore, Md. 8/31/2011.

NCBI AND UNIPROT INFORMATION

NCBI GI #	398303803
NCBI GeneID	90550
NCBI Accession #	NP_001257608.1
NCBI GenBank Nucleotide #	NM_001270679.1
UniProt Accession #	Q8NE86 ; Q96FL3 ; B2RDF3 ; B3KXV7
Molecular Weight	39,867 Da
NCBI Official Full Name	calcium uniporter protein, mitochondrial isoform 2
NCBI Official Synonym Full Names	mitochondrial calcium uniporter
NCBI Official Symbol	MCU
NCBI Official Synonym Symbols	C10orf42; CCDC109A
NCBI Protein Information	calcium uniporter protein, mitochondrial; coiled-coil domain-containing protein 109A

UniProt Protein Name	Calcium uniporter protein, mitochondrial
UniProt Gene Name	MCU
UniProt Synonym Gene Names	C10orf42; CCDC109A
UniProt Entry Name	MCU_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mcu-antibody-western-blot-immunohistochemistry-flow-cytometry-direct-elisa-elisa/19226>